IN THE CLAIMS

1. – 22. **(canceled)**

23. (previously presented) An apparatus comprising:

a pointer processing section for processing a pointer contained in a transmission frame; and

a frame identification section for identifying a frame composition of said transmission frame based on pointer processing result of said pointer processing section and for providing such identification result to said pointer processing section,

wherein said pointer processing section comprises:

a pointer detection section for detecting an NDF-bit, an SS-bit and a pointer value contained in a pointer byte of said transmission frame; and

an invalid pointer detection section for detecting that sa id pointer byte is an invalid byte, based on respective detection results in said pointer section;

in which said invalid pointer detection section is composed to change over a detection condition of a valid pointer byte according to a reception state and a frame composition of said transmission frame, and to detect as said invalid pointer byte such pointer byte not satisfying said detection condition,

said apparatus further comprising a protection section for outputting an LOP state indication when said invalid pointer byte is detected for given number of times consecutively in said invalid pointer detection.

24. (previously presented) An apparatus comprising:

a pointer processing section for processing a pointer contained in a transmission frame including one or more channel data; and

a frame identification section performing monitoring a change in a pointer processing result of said pointer processing section for each of the channel data to identify a frame size of said transmission frame based on a monitored pointer processing result,

wherein said pointer processing section comprises;

a pointer detection section for detecting an NDF-bit, an SS-bit and a pointer value contained in a pointer byte of said transmission frame; and

an AIS detection section for detecting an AIS state indication of said pointer byte, based on respective detection results in said pointer detection section;

in which said pointer processing section is composed to be able to output outside an AIS state indication signal as it is, upon the detection of said AIS state indication signal in said AIS detection section.

25. (previously presented) An apparatus comprising:

a pointer processing section for processing a pointer contained in a transmission frame; and

a frame identification section for identifying a frame composition of said transmission frame based on pointer processing result of said pointer processing section,

wherein said pointer processing section comprises;

a pointer detection section for detecting an NDF-bit, an SS-bit and a pointer value contained in a pointer byte of said transmission frame; and

an AIS detection section for detecting an AIS state indication contained in said pointer byte of said transmission frame, based on respective detection results in said pointer detection section;

in which, when said transmission frame includes a leading frame and a dependent frame linked to said leading frame, said pointer processing section is composed to cancel an

AIS state of both said leading frame and said dependent frame, upon reception of an NDF enable for said pointer byte of said transmission frame, during alarm state processing receiving said AIS state indication of said transmission frame from said alarm detection section.

26. (original) An apparatus according to claim 25:

wherein said pointer processing section is composed to annual said AIS state indication output from said AIS detection section, upon the reception of said NDF enable for said pointer byte of said transmission frame.

27. – 29. **(canceled)**

30. (previously presented) An apparatus comprising:

a pointer processing section for processing a pointer contained in a transmission frame; and

a frame identification section for identifying a frame composition of said transmission frame based on pointer processing result of said pointer processing section,

wherein said pointer processing section comprises a pointer detection section for detecting a pointer byte of said transmission frame;

in which said frame composition identification section comprises;

an identification condition setting section for setting an identification condition for each frame composition of said transmission frame; and

a frame composition determination section for determining that said transmission frame is a frame composition corresponding to said identification condition when detection

results of said pointer detection section satisfy said identification condition in said identification condition setting section,

wherein said frame composition determination second is composed to determine that said transmission frame is a frame composition corresponding to a second identification condition when detection results of said pointer detection section has satisfied a first identification condition setting section and then satisfies said second identification, and to cancel said detection results under said first identification condition.

31. – 34. **(canceled)**